

AMENDMENTS TO THE DRAWINGS

The attached replacement drawing sheets include changes to Figures 1-3. These replacement drawing sheets, which include Figures 1-3, replace the original drawing sheets including Figures 1-3.

Attachment: 2 replacement sheets of drawings

REMARKS

1. Summary of the Office Action

a. Objections to the Specification

In the Office action mailed October 18, 2004, the Examiner objected to the Abstract for comprising more than one paragraph and for the use of legal phraseology in the Abstract. The Examiner indicated that the invention title is not descriptive and indicated a new title is required that is clearly indicative of the invention to which the claims are directed. The Examiner objected to the specification for typographical errors.

b. Objections to the Drawings.

The Examiner objected to Figures 1, 2, and 3, for not being designated by a legend such as –Prior Art- because only that which is old is illustrated. The Examiner objected to Figure 1 because Figure 1 lacks sufficient labeling.

c. Claim Objections

The Examiner objected to claims 1, 7, 8, 10, 14, 20, 21, and 23 for using claim limitations with insufficient antecedent basis.

d. Claim Rejections

The Examiner rejected claims 12-13 under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter. The Examiner rejected claims 1-12 and 14-24 under 35 U.S.C. §112, first paragraph, as failing to comply with the written description. The Examiner rejected claims 1-24 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicants regard as the invention. The Examiner rejected claims 1-4, 12, and 14-17 under 35 U.S.C. §103(a) as being obvious over a combination of U.S.

Patent No. 5,926,462 (Schenkel et al) and U.S. Patent 5,712,981 (McKee et al.). And the Examiner rejected claims 5-11 and 18-24 under 35 U.S.C. §103(a) as being obvious over a combination of Schenkel et al. in view of McKee et al. as applied to claims 1-4, 12, and 15-17, and further in view of U.S. Patent Application Publication 2003/0147353 A1 (Clarkson et al.).

2. Amendments and Pending Claims

Applicants have amended claims 1-2, 7-8, 10, 12-15, 18, and 20-23. Now pending in this application are claims 1-24 of which claims 1, 13, and 14 are independent claims. Applicants have amended Figures 1-3 and the specification, as described below.

3. Response to Objections to the Specification

As noted above, the Examiner objected to the specification because (i) the abstract includes legal phraseology and includes more than one paragraph, (ii) the invention title is not descriptive, and (iii) typographical errors exist in the specification. Applicants have amended the specification to limit the abstract to one paragraph, to remove legal phraseology from the abstract, to change the invention title to the title to be descriptive of the claimed invention, and to correct the typographical errors noted by the Examiner.

4. Response to Objections to the Drawings

As noted above, the Examiner objected to (i) Figures 1, 2, 3, for not being designated by a legend such as – Prior Art - because only that which is old is illustrated, and (ii) Figure 1 because Figure 1 lacks sufficient labeling. Applicants have amended Figures 1, 2, and 3, to include the legend –Prior Art- as recommended by the Examiner, and have amended Figure 1 to include labels descriptive of the items shown in Figure 1.

5. Response to Claim Objections

The Examiner objected to claims 1, 7, 8, 10, 14, 20, 21, and 23 for using claim limitations with insufficient antecedent basis. Applicants have amended claims 1, 7, 8, 10, 14, 20, 21, and 23 to include the changes recommended by the Examiner.

6. Response to Claim Rejections under 35 U.S.C. §101

As noted above, the Examiner rejected claims 12 and 13 under 35 U.S.C. §101 because claims 12 and 13 recite claim limitations directed to non-statutory subject matter, a “carrier wave.” The Applicants have amended claims 12 and 13 to delete the claim limitation “or embodied in a carrier wave” from each claim. Thus, the Applicants submit that the rejection to claims 12 and 13 under 35 U.S.C. §101 is moot.

7. Response to Claim Rejections under 35 U.S.C. §112, 1st Paragraph

The Examiner rejected claims 1-12 and 14-24 under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. The Examiner indicated the claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claim invention. In particular, the Examiner indicated while the specification defines a server device, nowhere does the specification define a “server-like device.”

However, Applicants’ specification does define a “server-like device.” For example, “a server-like device which may simply be a computer carrying particular software.” (Page 2, lines 14-15). As another example, “selecting one or more of the groups of devices as server-like devices by selecting one of said points as a cut-off point beyond which all devices are considered as exhibiting server-like behaviour,” where

server-like behaviour is defined as “behaviour exhibited by a network device indicating that it may be managing network resources.” (See, 4, lines 8-10, and Page 7, lines 14-15). Since the Applicants’ specification defines “server-like devices,” Applicants submit that claims 1-12 and 14-24 comply with the written description requirement of 35 U.S.C. §112.

8. Response to Claim Rejections under 35 U.S.C. §112, 2nd Paragraph

As noted above, the Examiner rejected claims 1-24 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicants regard as the invention.

The Examiner rejected claims 1, 2, 7, 8, 13, 14, 15, 20, and 21, because of insufficient antecedent basis for certain limitations within these claims. The Applicants have amended claims 1, 2, 7, 8, 13, 14, 15, 20, and 21 to provide proper antecedent basis for the claim limitations that had insufficient antecedent basis, as noted by the Examiner.

Further, the Examiner rejected claim 13 for (i) being written in numerous sentences, (ii) using undefined acronyms, and (iii) referring to “store” because it is unclear how and where the storing takes place. The Applicants have amended claim 13 to be written as a single sentence, to provide definition of acronyms recited in the claim, and to clarify the “store” limitation.

9. Response to Claim Rejections under 35 U.S.C. §103 of claims 1-4, 12, and 14-17 Over a Combination of Schenkel et al. and McKee et al.

As noted above, the Examiner rejected claims 1-4, 12, and 14-17 under 35 U.S.C. §103(a) as being obvious over a combination of Schenkel et al. and McKee et al. Applicants respectfully traverse this rejection, because Schenkel et al. and McKee et al., whether considered alone or in combination, fail to disclose or suggest the combination

of elements recited in any of these claims, as would be required to support an obviousness rejection.

A. Schenkel et al.

Schenkel et al. involves a method of determining topology of a network of objects which compares the similarity of the traffic sequences/volumes of a pair of devices. In particular, Schenkel et al. teaches a method of determining the existence of a communication link between a pair of devices that comprises (i) measuring the traffic output from one device of a pair of devices, (ii) measuring the traffic received by another device, and (iii) declaring the existence of a communication link in the event the traffic is approximately the same. Schenkel et al. “exploits the fact that traffic flowing from a first device to a second device can be measured both as the output from the first device and as the input to the second device.” (Schenkel et al., Col. 1, lines 60-63).

B. McKee et al.

McKee et al. involves a network analysis method for identifying global and local node servers. The method of McKee et al. involves monitoring a network to collect and store traffic data indicative of the linkage between nodes. McKee et al. teaches the measure of traffic linkage used in making the assessment as to whether a node is a global server occurs by (i) counting the number of peer nodes with which the node of interest communicates, or (ii) measuring the traffic volume in terms of packets, frames, or bytes exchanged with each logical segment. The measure of traffic linkage used in testing for a local server can, as with the global server test, be simply a count of peer nodes or may be a measure of actual traffic volume.

C. Claims 1-4, 12, and 14-17

With respect to claims 1 and 14, the combination of Schenkel et al. and McKee et al. does not teach the claimed functions of (i) determining a respective ingress to egress network traffic ratio for at least some of the devices, or (ii) selecting the server-like devices on the basis of each determined ratio or a figure derived from each determined ratio.

As noted above, Schenkel et al. teaches determining the existence of a communication link between a pair of devices. The method involves measuring the traffic output from one device, measuring the traffic received by another device, and declaring a communication link if the traffic is about the same. However, since Schenkel et al. does not teach determining a network traffic ratio based on the input traffic and output traffic of each respective device for which a network traffic ratio is being determined, the Applicants submit that Schenkel et al. does not teach determining a respective ingress to egress network traffic ratio for at least some of the devices, as claimed in claims 1 and 14.

Further, although Schenkel et al. teaches determining the existence of a communication link between a pair of devices, and that the determination is based on the measured traffic output from one device and the measured received traffic from another device, the Applicants submit that Schenkel et al. does not teach selecting the server-like devices on the basis of each determined (ingress to egress network traffic) ratio or a figure derived from each determined (ingress to egress network traffic) ratio, as claimed in claims 1 and 14.

Further still, McKee et al. does not make up for these deficiencies in Schenkel et al. At best, McKee et al. teaches measuring a traffic linkage to assess whether a node is a global server or a local server. Measuring the traffic linkage involves counting a number of peer nodes with which the node of interest communicates or measuring a traffic volume in terms of packets, frames, or bytes exchanged with a logical segment. Since McKee et al. does not teach determining a network traffic ratio based on the input traffic and output traffic of each respective device for which a network traffic ratio is being determined, the Applicants submit that McKee et al. does not teach determining a respective ingress to egress network traffic ratio for at least some of the devices, as claimed in claims 1 and 14.

Further, since McKee et al. teaches identifying global servers and local servers based on a measure of traffic linkage and not an ingress to egress network traffic ratio, the Applicants submit that McKee et al. does not teach selecting the server-like devices on the basis of each determined (ingress to egress network traffic) ratio or a figure derived from each determined (ingress to egress network traffic) ratio, as recited in claims 1 and 14. Thus, the Applicants submit that the combination of Schenkel et al. and McKee et al. do not teach or suggest all of the elements of either claim 1 or claim 14.

Because the combination of Schenkel et al. and McKee et al. fails to disclose or suggest all of the limitations of any of claims 1 and 14, a prima facie case of obviousness of these claims does not exist. Further, because each of claims 2-13 and 15-24 depend from either claim 1 or claim 14, a prima facie case of obviousness of claims 2-13 and 15-24 does not exist as well.

10. Response to Claim Rejections under 35 U.S.C. §103 of claims 5-11 and 18-24 Over a Combination of Schenkel et al. and McKee et al.

The Examiner next rejected claims 5-11 and 18-24 as being obvious over a combination of Schenkel et al., McKee et al, and Clarkson et al. Applicants traverse this rejection because the combination of Schenkel et al., McKee et al, and Clarkson et al. fails to disclose or suggest all of the limitations of these claims, as required to support an obviousness rejection.

Claims 5-11 depend from claim 1 and thus incorporate all of the limitations of claim 1. Claims 18-24 depend from claim 14 and thus incorporate all of the limitations of claim 14. For the reasons stated above, the combination of Schenkel et al. and McKee et al., fails to render obvious the invention of claims 1 and 14. Further, Applicants submit that Clarkson et al. fails to overcome the deficiency of the Schenkel et al. and McKee et al. combination. Consequently, the combination of Schenkel et al., McKee et al, and Clarkson et al. fails to render obvious the invention of claims 1 and 14 and thus fails to render obvious the invention of dependent claims 5-11 and 18-24.

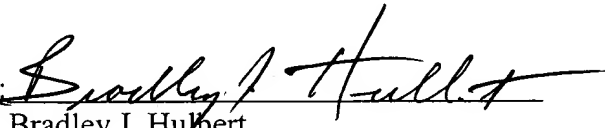
11. Conclusion

For the foregoing reasons, Applicants submit that claims 1-24 are in condition for allowance. Therefore, Applicants respectfully request favorable reconsideration and allowance of all of the claims.

Respectfully submitted,

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